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| --- | --- |
| Base | When a number is raised to a power, the number that is used as a factor. |
| Dividing Powers with the Same Base Property | For every nonzero number a and integers m and n, http://cmapp.wcpss.net/uploads/images/ashley102.4.gif |
| Exponent | The number that indicates how many times the base is used as a factor. |
| Exponential Form | A number is written in exponential form when it has a base and an exponent. |
| Laws of Exponents | The "Laws of Exponents" (also called "Rules of Exponents") come from three ideas: The exponent says how many times to use the number in a multiplication. |
| Multiplication Property of Exponents | For any nonzero number *a* and integers *m* and *n*, *am•an=am+n* |
| Perfect Cube | The cube of a rational number |
| Perfect Square | The square of a rational number |
| Power | The power of a number says how many times to use the number in a multiplication. |
| Raising a Power to a Power Property | For every nonzero number *a* and integers *m* and *n*, (*am)n=amn* |
| Raising a Product to a Power Property | For every nonzero number *a* and *b* integer *n*, (*ab)n=anbn* |
| Raising a Quotient to a Power Property | For every nonzero numbers a and b and integer n, http://cmapp.wcpss.net/uploads/images/ashley102.5.gif |
| Zero Exponent | For every non-zero number a, a0 = 1. |

**CCM8 Unit 3: Properties of Exponents Vocabulary**